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Horizon 2020 Work Programme for Research & Innovation 2018-2020

Industrial Upscaling in Nanotech and Advanced Materials

EU PILOT PRODUCTION NETWORK

Background and Expectations

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Research and Innovation

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Welcome & Introduction

- Innovation and Upscaling in a Policy Context
- The Challenge of Upscaling
- From Pilot Lines to Open Innovation Test Beds
- OITB Scope, Examples and Expected Impact
- Call topics 2018-20
- Expectations to the meeting and the EPPN CSA

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EU Policy Context

Juncker's Priorities

- Boosting competitiveness, creating jobs and supporting growth

EU Industrial Policy

- Stimulating investments in innovation and new technologies
- SMEs and Entrepreneurship

EU Strategy for Key Enabling Technologies

- EU's industrial innovation capacities
- Exploitation of the EU's potential in competitive markets

Commissioner Moedas's priorities

- Open Innovation

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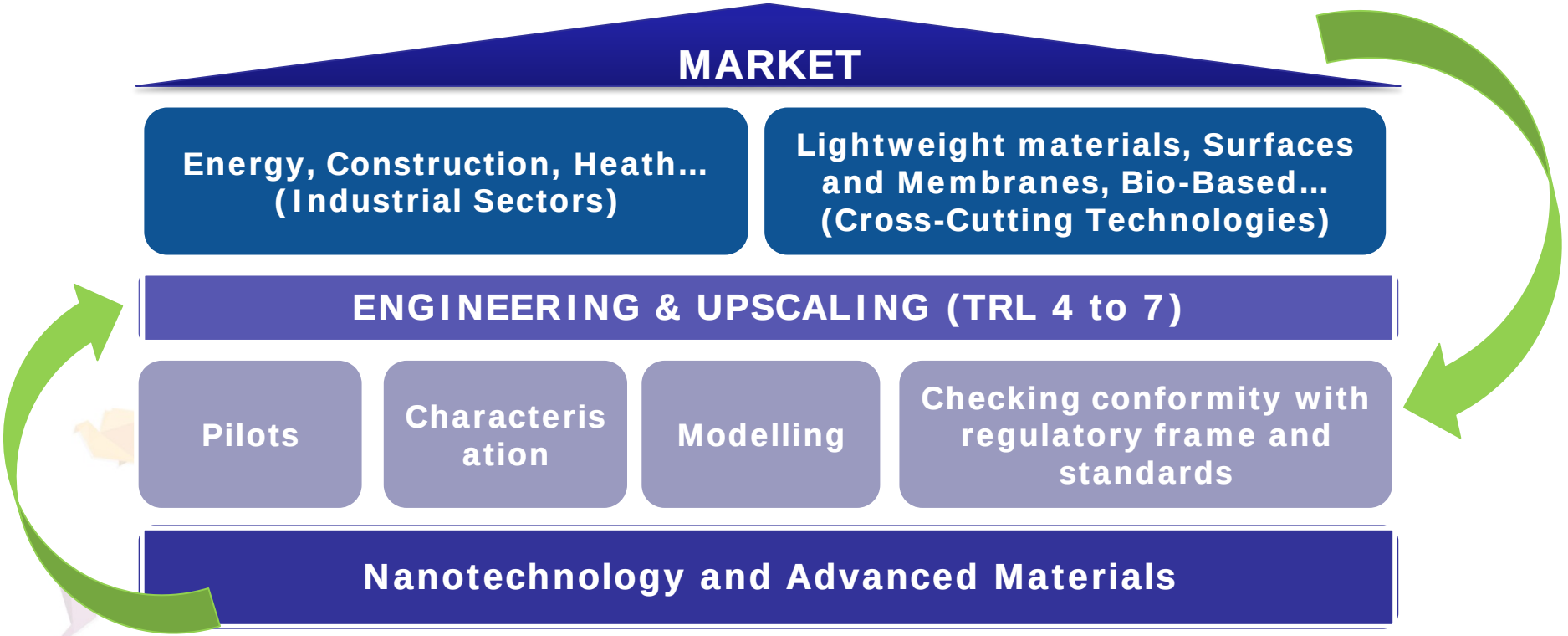
Overcoming the Challenge of Upscaling:
Reduction of Technological Risk & attract investments



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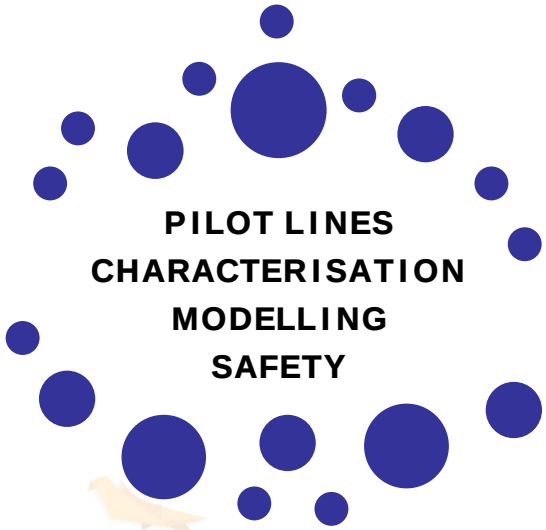
Open Innovation Test Beds



ACCELERATING INNOVATION for MATERIALS Industry

In the two KETs:

Nanotechnologies and Advanced Materials

OPEN INNOVATION TEST BEDS

FP7-H2020

H2020-FP9

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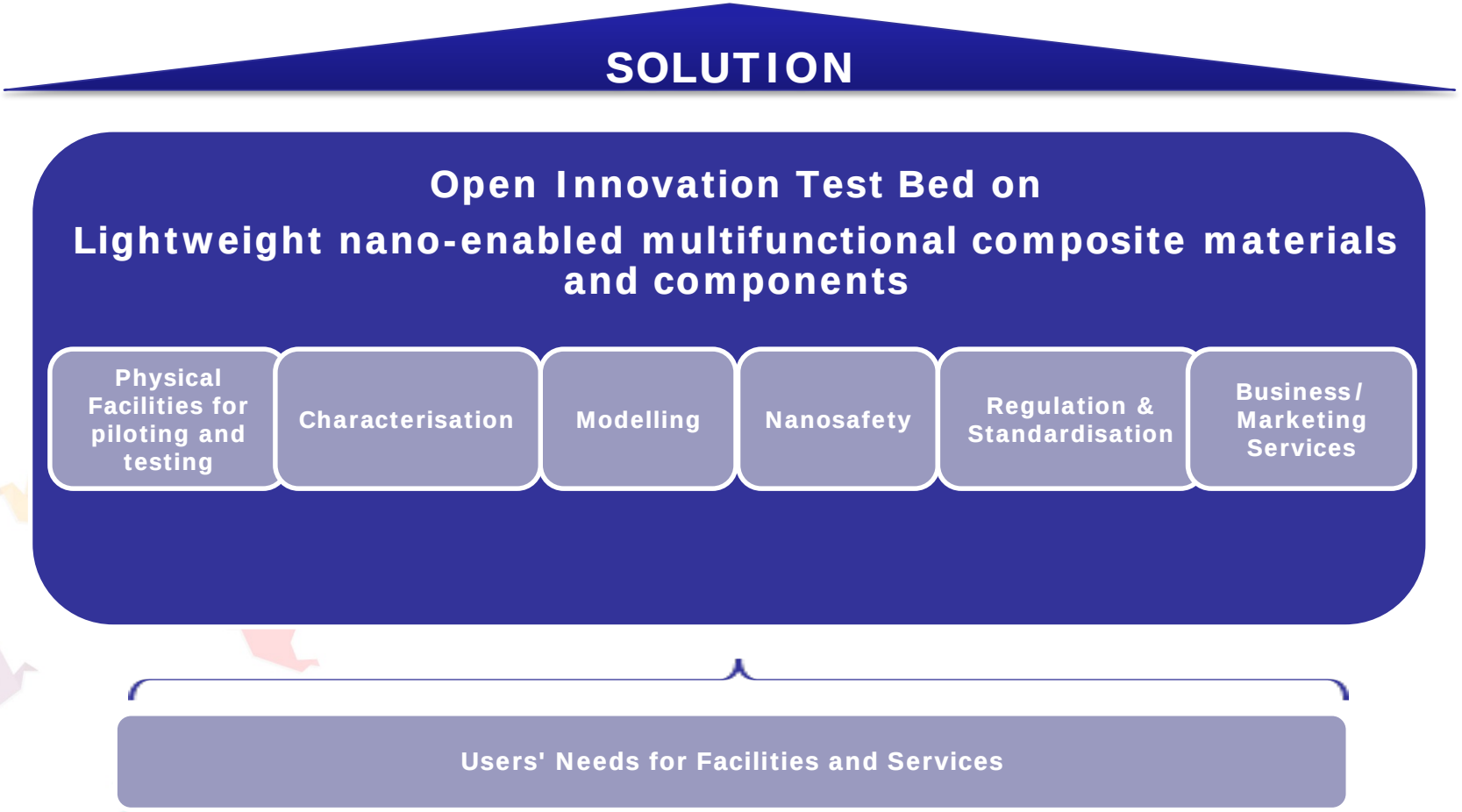
Open Innovation Test Beds - Scope

- Open access to facilities and services for design, development (prototyping), testing, and upscaling materials and nanotechnologies for new products
- Demonstration in the relevant industrial environments
- Show-casing technologies with user industry in cross border applications
- Facilitate access of European SMEs along product value chains
- Identification and assessment of potential regulatory, economic and technical barriers
- Engagement of stakeholders across the EU and the Associated Countries

Example of Test Bed with Own Facilities and Services



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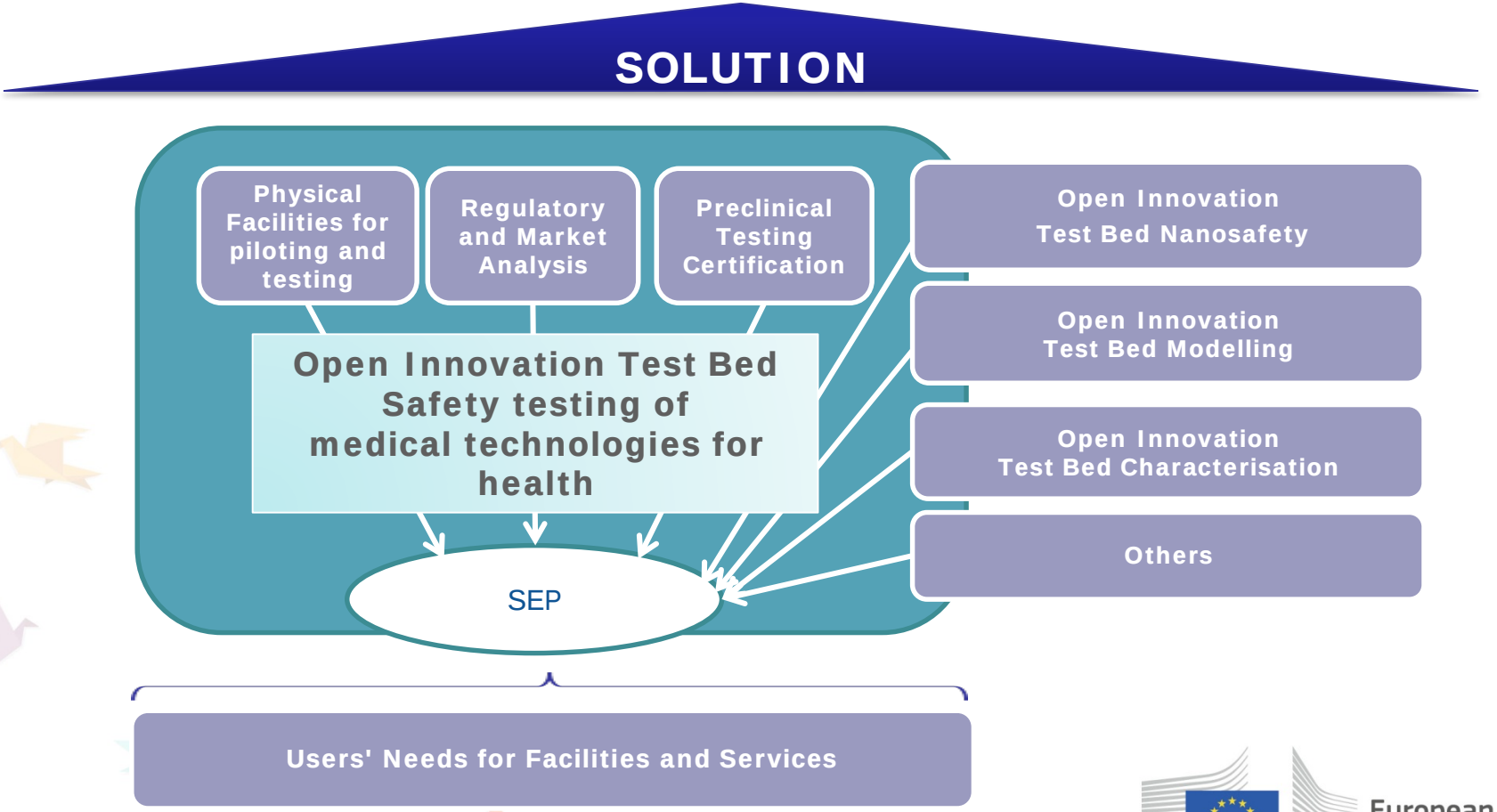
Example of Test Bed with Facilities & Service in House and Provided by External Entities



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Open Innovation Test Beds – Expected Impact

- Open and upgraded facilities at the EU level
- Reduced services access costs for companies using the test beds
- Improved industrial productivity
- Accelerated innovation in the specific domain
- Increased access to finance (for SMEs in particular) for investing in these materials or in applications using them
- 20% increase in SMEs access to test beds' services and increased access to finance for investing in these materials or in applications using them

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Next:

Open Innovation Test Beds (2018-20)

EU Investment

- €260m investment in Open Innovation Test Beds for Nanotechnology and Advanced Materials

What are they?

- Physical facilities offering technology access and services to advance from validation in a laboratory (TRL 4) to prototypes in industrial environments (TRL 7)

How many test beds will be funded?

- 20 Test Beds for materials development and upscaling in 6 technology domains
- 4 Test Beds for materials characterisation
- 4 Test Beds for modelling

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Open Pilots and Test Beds – Conditions…

- **Multi-facility sites and full innovation services**
  Materials upscaling value chain, including modelling, characterisation (monitoring), safety (regulation and standards) and business advisory services.
- **Comprehensive validation with industry**
  Multi-sector and multi-application validation with industry (SMEs)
- **Open access for industry**
  Technology transfer and start up service providers) (single entry point.
- **SME and Start-up attractive**
  To become sustainable. Complementary funding and private finance may be needed.
- **EU wide networked services**
  Part of eco-systems addressing relevant value chain segments for producing and testing new materials and functionalities. Collaboration between Test Bed facilities and other existing upscaling facilities and services.

WP2018-2020 TEST BEDS

For upscaling nanotechnology and materials, Open Innovation Test Beds will be funded in 6 technology domains, plus Characterisation and Modelling

2018

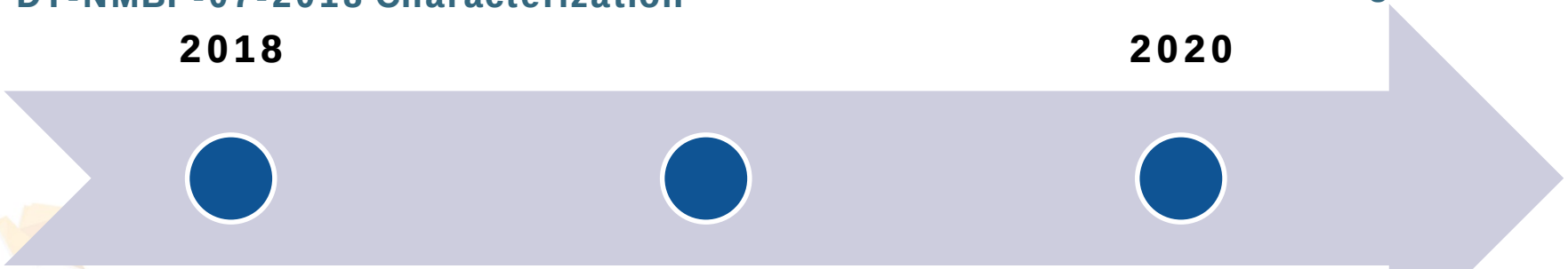
- **DT-NMBP-01-2018 Lightweight**
- **DT-NMBP-02-2018 Med Tech Health**
- **DT-NMBP-07-2018 Characterization**

2019

- **DT-NMBP-03-2019 Surfaces and membranes**

2020

- **DT-NMBP-04-2020: Bio-based**
- **DT-NMBP-05-2020: Building envelopes**
- **DT-NMBP-06-2020: Nano-pharmaceuticals**
- **DT-NMBP-11-2020: Modelling**



- EMMC-CSA - European Materials Modelling Council
- EPPN–CSA - European Pilot Production Network
- Nanosafety Cluster

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Expectations for Meeting

Introduce the EPPN CSA activities, and facilitate discussions on :

- **how the EPPN can support the pilots,**
- **how the pilots can get involved in the EPPN activities; and ultimately…**
- **how establish a European innovation "full service" eco-system and Virtual Marketplace – involving:**
  - Pilot projects, other facilities and end-user industries (SMEs) (on operations)
  - EU and Memberstate
  - Regional programme managers (regional input and implementation)
  - Other clusters and networks (KET Networks, EMMC, EMCC, Safety, Finance, ..)

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Expectations for EPPN

- Support the creation of a European innovation upscaling eco-system around facilities physically dispersed across Europe
- Dynamic map of European upscaling and technology transfer facilities in the areas of nanotech and advanced materials
- Design measures to facilitate access to these facilities through a Virtual Marketplace
- Ensure European consistency concerning access conditions – to the EPPN, the Marketplace and the member facilities
- Recommend how could SMES be encouraged and supported to access the upscaling facilities by providing a "full service" "single entry point" service.

Further information

Horizon 2020: http://ec.europa.eu/research/horizon2020/index_en.cfm

Key Enabling Technologies, R&I website :
http://ec.europa.eu/research/industrial_technologies/index_en.cfm

Participant Portal - Funding Opportunities and support services :
http://ec.europa.eu/research/participants/portal/desktop/en/home.html

National Contact Points in your country (NMP)
http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html#c,contact=country/sbg//1/1/0&+person.last_name/desc

National Contact Points website - webinars, presentations, guidance :
http://www.nmpteam.eu/

Research Enquiry Service:
http://ec.europa.eu/research/index.cfm?pg=enquiries

CORDIS database with EU funded research projects :
http://cordis.europa.eu/projects/home_en.html

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Thank you!

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